

# **Multi-Stacking Power Changer**

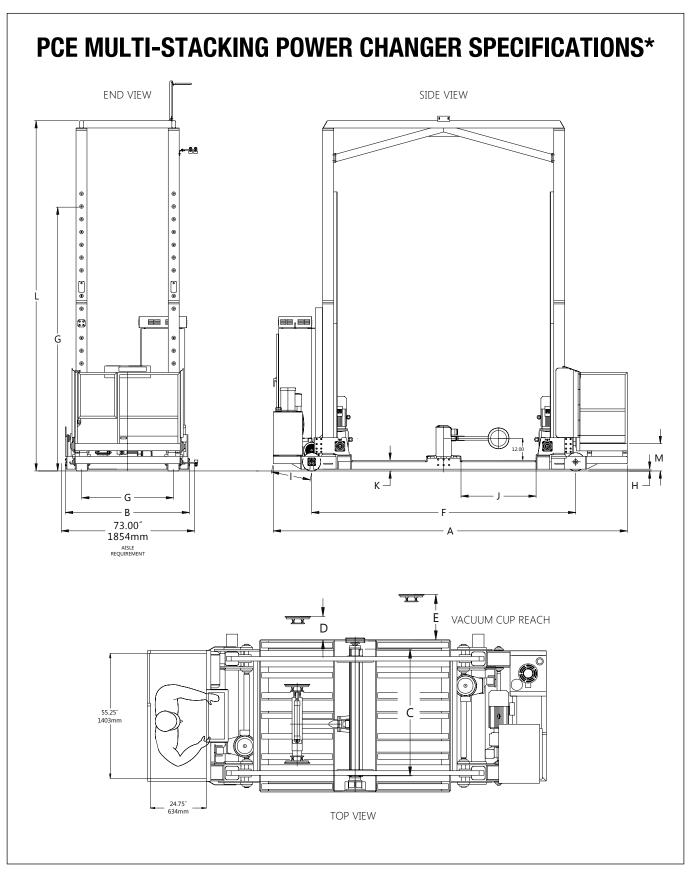


TWO, THREE, FOUR, FIVE & SIX HIGH STACKING MODELS AVAILABLE



Model PCE 480 Volt





PLEASE REFERENCE THE DIMENSIONAL DATA CHART ON PAGE 3 TO MATCH THE LETTERS TO THE CORRESPONDING SPECIFICATION.



## MTC MODEL PCE MULTI-STACKING POWER CHANGER

#### General Specifications<sup>1</sup>

\* All Specifications Subject to Change Without Notice.

|    | MODEL NO.                            | PCE             | E-24                               | PC              | E-32                     | PCI                  | E-40       |  |
|----|--------------------------------------|-----------------|------------------------------------|-----------------|--------------------------|----------------------|------------|--|
| 1  | Drive System H.P./KW                 | 7.5 HP          | 5.6KW                              | 7.5 HP          | 5.6KW                    | 7.5 HP               | 5.6KW      |  |
| 2  | Raise/Lower H.P.                     | 7.5×2 =         | $7.5 \times 2 = 15 \text{ H.P.}$ 7 |                 | $7.5 \times 2 = 15$ H.P. |                      | = 15 H.P.  |  |
| 3  | Raise/Lower Speed                    | 0-27 FPM        | 0-8.23 MPM                         | 0-27 FPM        | 0-8.23 MPM               | 0-27 FPM             | 0-8.23 MPM |  |
| 4  | Hydraulic System H.P./KW             | 5HP             | 4KW                                | 5HP             | 4KW                      | 5HP                  | 4KW        |  |
| 5  | Travel Speed                         | 0-225 FPM       | 0-68.6 MPM                         | 0-225 FPM       | 0-68.6 MPM               | 0-225 FPM            | 0-68.6 MPM |  |
| 6  | Machine Duty Cycle (Per Year)        | 5,500           | ) Hrs.                             | 5,500 Hrs.      |                          | 5,500 Hrs.           |            |  |
| 7  | Input Voltage                        | 480 VAC / 60 Hz |                                    | 480 VAC / 60 Hz |                          | 480 VAC / 60 Hz      |            |  |
| 8  | Control Voltage                      | 24 VDC          |                                    | 24 VDC          |                          | 24 VDC               |            |  |
| 9  | System AC Amp Draw                   | 42.1 Am         | ps @ 480                           | 42.1 Am         | nps @ 480 42.1 Amps @ 48 |                      | ps @ 480   |  |
| 10 | Draw Bar Pull (10" Round Vacuum Cup) | 1,000 Lbs.      | 454 kgs.                           | 1,000 Lbs.      | 454 kgs.                 | 1,000 Lbs.           | 454 kgs.   |  |
| 11 | Power Unit Type                      | Electric /      | Hydraulic                          | Electric /      | Hydraulic                | Electric / Hydraulic |            |  |
| 12 | Wheel Type / Size (Height × Width)   | Poly / 10"×6"   | 254×152 mm                         | Poly / 10"×6"   | 254×152 mm               | Poly / 10"×6"        | 254×152 mm |  |
| 13 | Capacity (Fully Loaded)              | 10,000 Lbs.     | 4536 kgs.                          | 10,000 Lbs.     | 4536 kgs.                | 10,000 Lbs.          | 4536 kgs.  |  |
| 14 | Service weight (Empty)               | 9,436 Lbs       | 4281 kgs.                          | 9,610 Lbs       | 4359 kgs.                | 9,871 Lbs.           | 4477 kgs.  |  |

#### **Dimensional Data**

| Dillio | Difficultion Data                           |              |         |              |         |              |         |  |  |  |
|--------|---|--------------|---------|--------------|---------|--------------|---------|--|--|--|
|        | MODEL NO.                                   | PCE          | E-24    | PCE          | -32     | PCE          | E-40    |  |  |  |
| Α      | Overall Length                              | 160″         | 4064 mm | 176 1/4″     | 4477 mm | 194″         | 4928 mm |  |  |  |
| В      | Overall Width                               | 67 1/4″      | 1708 mm | 67 1/4″      | 1708 mm | 67 1/4″      | 1708 mm |  |  |  |
| С      | Vacuum Arm Travel                           | 48 3/8″      | 1229 mm | 48 3/8″      | 1229 mm | 48 3/8″      | 1229 mm |  |  |  |
| D      | Max. Vacuum Arm Reach (Standard Arm)        | LS - 9 3/8"  | 238 mm  | LS - 9 3/8"  | 238 mm  | LS - 9 3/8"  | 238 mm  |  |  |  |
|        | Wax. Vacuum Ami Neach (Standard Ami)        | RS - 8 3/4"  | 222 mm  | RS - 8 3/4"  | 222 mm  | RS - 8 3/4"  | 222 mm  |  |  |  |
| E      | Max. Vacuum Arm Reach (Extension Arm)       | LS - 20 3/4" | 527 mm  | LS - 20 3/4" | 527 mm  | LS - 20 3/4" | 527 mm  |  |  |  |
|        | IVIAX. VACUUIT ATTI NEACTI (Extension Atti) | RS - 18"     | 457 mm  | RS - 18"     | 457 mm  | RS - 18"     | 457 mm  |  |  |  |
| F      | Wheel Base                                  | 110 5/8″     | 2810mm  | 126 7/8″     | 3223 mm | 144 5/8″     | 3673 mm |  |  |  |
| G      | Centerline of Drive Wheels                  | 50 1/4″      | 1276mm  | 50 1/4″      | 1276 mm | 50 1/4″      | 1276 mm |  |  |  |
| Н      | Ground Clearance                            | 1″           | 25 mm   | 1″           | 25 mm   | 1″           | 25 mm   |  |  |  |
| I      | Grade Percent                               | 1'           | %       | 1%           |         | 1'           | %       |  |  |  |
| J      | Battery Compartment Size (Each)             | 24 1/8″      | 613 mm  | 32 1/4″      | 819mm   | 41 1/8″      | 1045 mm |  |  |  |
| 15     | Max. Battery Length                         | 44″          | 3658 mm | 44″          | 3658 mm | 44″          | 3658 mm |  |  |  |
| 16     | Max. Battery Width                          | 23″          | 584 mm  | 31″          | 787 mm  | 40″          | 1016mm  |  |  |  |
| 17     | Max. Battery Height                         | 32″          | 613mm   | 32″          | 613mm   | 32″          | 613 mm  |  |  |  |
| 18     | Min. Battery Length                         | 12″          | 305 mm  | 12″          | 305 mm  | 12″          | 305 mm  |  |  |  |
| 19     | Min. Battery Width                          | 6.5″         | 165 mm  | 6.5″         | 165 mm  | 6.5″         | 165 mm  |  |  |  |
| 20     | Min. Battery Height <sup>2</sup>            | 19″          | 483 mm  | 19″          | 483 mm  | 19″          | 483 mm  |  |  |  |
| 21     | Carriage Free Lift                          | 18″          | 457 mm  | 18″          | 457 mm  | 18″          | 457 mm  |  |  |  |

### **Multi-Stacking Dimensional Data**

| Multi-otacking Dimensional Data |                                   |               |        |               |             |                |         |                |         |  |         |  |
|---------------------------------|-----------------------------------|---------------|--------|---------------|-------------|----------------|---------|----------------|---------|--|---------|--|
|                                 | STACKING HEIGHT                   |               | Double |               | Triple      |                | Quad    |                | Five    |  | Six     |  |
| K                               | Carriage Height                   | 6″ / 56 1/4″  |        | 6″ / 97 1/2″  |             | 6″ / 138 3/4″  |         | 6″ / 180″      |         | 6″ / 221 1/4″  |         |  |
| l K                             | (Lowered/ Raised)                 | 152/14        | 429 mm | 152/2         | 476 mm      | 152/3          | 524 mm  | 152/4          | 572mm   | 6" / 22<br>152 / 50<br>283 1 / 2"<br>15" / 2<br>381 / 50 | 620 mm  |  |
| L                               | Overall Height                    | 118 3/4″      | 3016mm | 160″          | 4064 mm     | 201 1/4"       | 5112 mm | 242 1/2"       | 6159 mm | 283 1/2"   | 7201 mm |  |
| М                               | Operator Platform Height          | 15" / 45 5/8" |        | 15" / 86 7/8" |             | 15" / 128 1/8" |         | 15" / 169 3/8" |         | 15" / 210 5/8"   |         |  |
| IVI                             | (Lowered/ Raised)                 | 381/1         | 159 mm | 381/2         | 381/2207 mm |                | 254 mm  | 381/40         | 302 mm  | 381/53   | 350 mm  |  |
| 21                              | Upper Guide Required? (Yes/No)    | N             | No No  |               | Yes         |                | Yes     |                | Yes     |  |         |  |
| 22                              | Floor Variance (+ or - in 10 ft.) | 1/4″          | 6mm    | 1/8″          | 3 mm        | 1/16″          | 2mm     | 1/16″          | 2mm     | 1/16″  | 2mm     |  |

#### **Available Options:**

Stainless Steel Watering Tank and Pump Kit (Battery Filling System) Hydraulic Extension Arm

Hydraulic Carriage Roller Extensions (Note: Restricts Lowered Height to  $14\H/356mm)$  Strobe Light and Horn Kit

#### Notes:

- 1. Performance may vary +/- 5% due to system efficiency tolerance. The performance shown represents nominal values obtained under typical operating conditions.
- 2. Special 220 rotary actuator available for batteries less than 19"/356mm tall. Consult factory.



## **FUNCTION AND DESIGN**

The PCE series battery puller utilizes three separate power systems, all working together to create optimum performance. The first system is an AC controlled gear reduction drive system. This system incorporates a computerized SEW Eurodrive<sup>TM</sup> motor inverter that controls braking, drive speeds, and torque settings.

The raise/lower power system of the PCE uses two additional Eurodrive™ motors (running in parallel) to raise and lower the carriage on the four point rack and pinion upright system. The final power system drives the hydraulic components of the unit such as the carriage conveyors and pivot arm assembly.

By using its three power units together, the PCE is able to offer 100% true multi-function control. This control means that the operator can travel, raise the carriage, and manipulate the vacuum arm simultaneously without any loss of performance.

The PCE is also the only battery puller designed to expand with your growing needs. This unit has the ability to be converted from a double stacking machine all the way up to a six high machine.

The multi-function center joystick on the PCE's control panel allows the operator to move the vacuum pivot arm in eight directions as well as control left and right vacuum suction. If a hydraulic extension arm is required for your application, the extension arm controls are also integrated into the center joystick.

The carriage roller conveyors are also controlled with a joystick on the control panel. This new joystick is much more intuitive for new and old users alike.

The PLC controlled battery safety lock system prevents the operator from discharging a battery off the carriage unintentionally. This unique lockout system utilizes four polarized retro-reflective photo eyes and a small PLC controller that monitors the position of the battery and forces the operator to make the decision as to whether or not to discharge the battery from the carriage.

The dead-man operator platform of the PCE allows full access to the control panel and allows operators to easily position themselves during each battery change. The platform is also equipped with two limit switches that prevent operation of the battery puller unless the operator is standing on the platform.

This high capacity machine is designed for a duty cycle of up to 300 battery changes per day or 5,500 hours per year. The PCE requires scheduled preventive maintenance which should be performed by factory trained individuals. The specific maintenance intervals are outlined in the parts and service manual.



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